

Title (en)
OPTICAL SENSOR DEVICE

Title (de)
OPTISCHE SENSORVORRICHTUNG

Title (fr)
DISPOSITIF DE CAPTEUR OPTIQUE

Publication
EP 3227668 B1 20180905 (EN)

Application
EP 16710327 A 20160208

Priority
IB 2016050643 W 20160208

Abstract (en)
[origin: WO2017137798A1] An optical sensor device (100) for measuring at least two analytes is disclosed. The sensor device (100) contains at least one first dye (11) and a second dye (22), wherein the dyes (11, 22) have an optical behaviour that depends on the respective analytes. The at least one first dye (11) is contained in a membrane (1). The membrane (1) limits a cavity (2). The cavity (2) contains a buffer (21) mixed with the second dye (22). The optical behaviour of the dyes (11, 22) can be stimulated with excitation light, and the resulting optical behaviour can for example be detected by photodetectors (53, 54) making use of associated dichroic mirrors (51, 52). A reservoir (3) for the buffer (21) and second dye (22) may be provided, the reservoir (3) being in diffusive contact with the cavity (2). Components of the optical sensor device (100) may be arranged in a common housing (80). The housing (80) may have means (82) for mechanically connecting it to a port (203) of a vessel (200), like a bio-reactor, and may have an interface (81) for communication with an external device (90) and / or for power supply of the sensor device (100).

IPC 8 full level
G01N 21/78 (2006.01)

CPC (source: EP US)
G01N 21/6428 (2013.01 - US); **G01N 21/7703** (2013.01 - EP US); **G01N 21/78** (2013.01 - US); **G01N 21/783** (2013.01 - EP US); **G01N 21/80** (2013.01 - EP US); **G01N 2021/6439** (2013.01 - US); **G01N 2021/772** (2013.01 - EP US); **G01N 2021/775** (2013.01 - EP US); **G01N 2021/7793** (2013.01 - EP US); **G01N 2021/7796** (2013.01 - EP US)

Citation (examination)
• US 2015068898 A1 20150312 - FANSELOW CHRISTIAN [DE], et al
• DE 102013108659 B3 20140703 - PRESENS PREC SENSING GMBH [DE]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2017137798 A1 20170817; CN 108700527 A 20181023; CN 108700527 B 20210518; EP 3227668 A1 20171011; EP 3227668 B1 20180905; JP 2019505000 A 20190221; JP 6691970 B2 20200513; US 2018321160 A1 20181108

DOCDB simple family (application)
IB 2016050643 W 20160208; CN 201680081322 A 20160208; EP 16710327 A 20160208; JP 2018541358 A 20160208; US 201816039034 A 20180718